

CLAIMS

What is claimed is:

1. A metal wood golf club head adapted for attachment to a shaft comprising:
a substantially hollow body welded to a stamped metal impact insert;
the body including a heel portion, a toe portion, a crown portion, a sole plate, a skirt portion connecting the heel portion to the toe portion, and a face perimeter having an opening for receiving the stamped metal impact insert;
an upper section of the face perimeter forming a transition junction with the crown portion, and a lower section of the perimeter face forming a junction with the sole plate; and
the opening of the face perimeter a suitable distance from either of the transition junctions,
thereby, substantially eliminating welding at the transition junctions.
2. The golf club head of claim 1, wherein the distance from either the crown or the sole plate transition junctions to the face perimeter is at least about 0.20 inches.
3. The golf club head of claim 1, wherein the distance from either the crown or sole plate transition junctions to the face perimeter is at least about 0.15 inches.
4. The golf club head of claim 2, wherein the face perimeter and the insert are substantially oval shaped.
5. The golf club head of claim 4, wherein the shell thickness of the face perimeter is approximately 0.80 inches.
6. The golf club head of claim 5, wherein the hollow cast body and the insert are made substantially of titanium or titanium based alloy.

7. The golf club head of claim 6, wherein the wall thickness of the insert is approximately 0.10 inches at its center and about 0.09 inches at its outer edge.
8. The golf club head of claim 7, wherein the insert comprises having at least two different radii of curvature for interior and exterior surfaces.
9. The golf club head of claim 1, wherein the size of the club head is between about 350 and 500 cubic centimeters.
10. The golf club head of claim 9, wherein the body and the insert are made from a titanium alloy.
11. The golf club head of claim 1, wherein the size of the club head is between about 270 and 450 cubic centimeters.
12. The golf club head of claim 11, wherein the body is substantially 6-4 titanium alloy and the insert is substantially 15-3-3-3 titanium alloy.
13. The golf club head of claim 12, wherein the wall of the insert has a uniform thickness of between about 0.100 inches and 0.125 inches.
14. The golf club head of claim 1, wherein the size of the club head is between about 230 to 350 cubic centimeters.
15. The golf club head of claim 14, wherein the wall of the insert has a uniform thickness between about 0.75 inches and 0.105 inches.
16. The golf club head of claim 14, wherein the club head loft is equal to or greater than 13°.

17. The golf club head of claim 16, wherein the wall of the insert has a uniform constant thickness of between about 0.05 inches and 0.09 inches.
18. The golf club head of claim 1, wherein the cast body includes a weight element disposed on the sole plate, in an area adjacent to the juncture of the heel and skirt portions.
19. The golf club head of claim 18, wherein the body has a generally cylindrical hosel extending from the heel portion, an extension of the hosel centerline axis having an intersection point with the sole plate.
20. The golf club head of claim 19, wherein the weight element is preferably centered on a point substantially rearward from the intersection point.
21. The golf club head of claim 20, wherein the center of the weight element is disposed at a distance greater than about 1.5 inches from the intersection point.
22. The golf club head of claim 20, wherein the center of the weight element is disposed at a distance greater than about 1.0 inches from the intersection point.
23. The golf club head of claim 20, wherein the weight element is greater than 12 grams and preferably greater than 16 grams.
24. A metal wood golf club head adapted for attachment to a shaft comprising:
a substantially hollow body having a crown portion, a sole plate, a toe portion, a heel portion, a skirt portion having a juncture with the heel portion and a ball striking face extending therebetween,
the body having a hosel extending from the heel portion for attachment to the shaft,
the hosel having a centerline axis, an extension of which meets the sole plate at an intersection point,

a weight element disposed on the sole plate rearward from the intersection point adjacent to the juncture of the heel and skirt portions.

25. The golf club head of claim 24, wherein the weight element is centered and disposed on the sole plate at a distance greater than about 1.0 inches and preferably greater than about 1.5 inches from the intersection point.

26. The golf club head of claim 25, wherein the weight element is chosen from a variety of weight units, each weight unit designed for a specific swing dynamic.

27. The golf club head of claim 26, wherein the weight element is greater than about 12 grams and preferably greater than about 16 grams.